

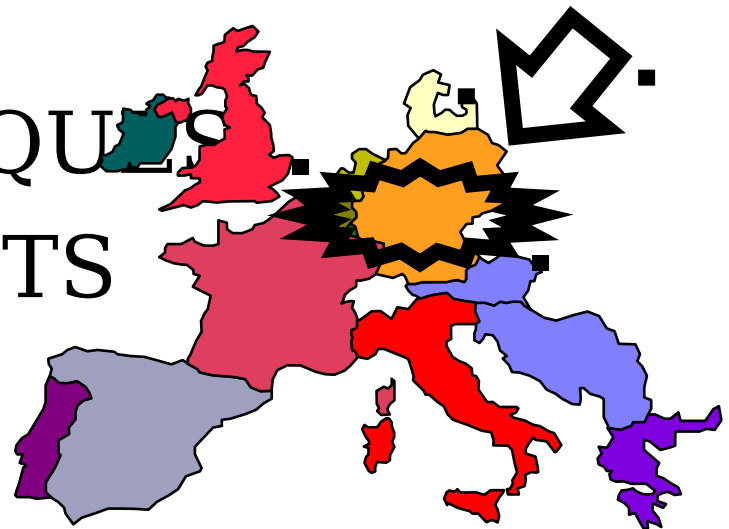
1ST ARMORED DIVISION WINTER DRIVING

- Croatia
- Bosnia
- Hungary
- Central
Region
- Kosovo



OUTLINE

- › EFFECTS OF ADVERSE WEATHER ON EQUIPMENT AND CARGO
- › MAINTENANCE IN WINTER WEATHER
- › DRIVING TECHNIQUES
- › RISK ASSESSMENTS



EFFECTS OF WEATHER ON EQUIPMENT

COLD WEATHER ENGINE
STARTING AND WARM-UP
PROCEDURES APPLY!
~~DO NOT RACE ENGINE!~~

CLEAN THE VEHICLE

CLEAN ALL LIGHTS
COMPLETELY!

SCRAPE ALL WINDOWS AND MIRRORS

SWEEP ALL THE SNOW OFF THE VEHICLE

* GOOD ALL-AROUND VISIBILITY IS THE FIRST
REQUIREMENT FOR SAFE WINTER DRIVING.



- REMOVE ALL SNOW AND ICE
FROM VEHICLE AND TRAILER
- GOOD ALL AROUND VISIBILITY IS
ESSENTIAL

DEFROSTERS

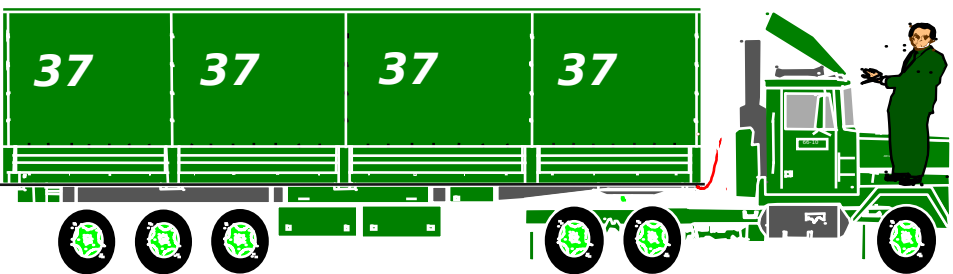
IF DEFROSTERS ARE NOT AVAILABLE, WEDGE THE REAR OF THE HOOD OPEN SO THE HEAT FROM THE MOTOR IS VENTED TOWARD THE WINDSHIELD.

* Heaters should be checked daily.

COVER THE WINDSHIELD WHEN PARKED (ESPECIALLY AT NIGHT)

ENGINE SHUTDOWN

1. Ensure that the vehicle cools down properly before shutting down the engine.
2. Attempt to park the vehicle so that the engine is not facing directly into the wind.
3. Raise the wipers away from the windshield to prevent the wipers from freezing to the windshield.
4. During extreme cold weather, the vehicle should be started every 4



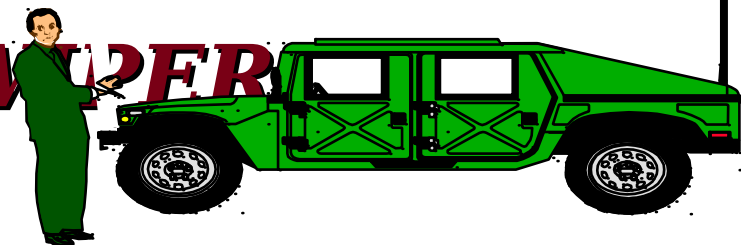
✓ **TIRES**

✓ **COOLING
SYSTEM**

✓ **BATTERIES**

✓ **EXHAUST
SYSTEM**

✓ **WIPER**

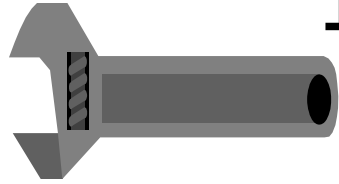


✓ **LIGHTS**

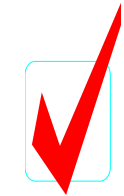
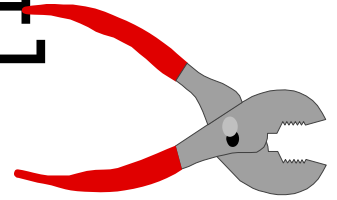
✓ **FLUID LEVELS**

✓ **HEATERS/DEFROST
ERS**

✓ **PERSONAL GEAR**



MAINTENANCE POINTS



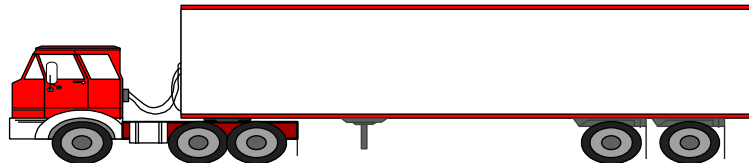
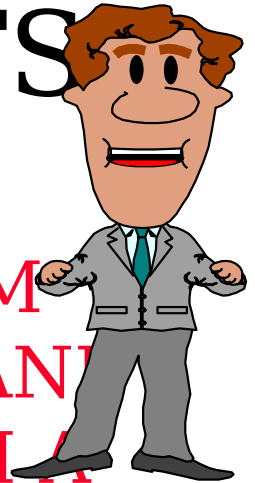
- PROPER MAINTENANCE HABITS ARE EVEN MORE CRITICAL IN COLD WEATHER.



- ANTIFREEZE/COOLANT SHOULD BE CHECKED AT REGULAR INTERVALS, OR , AT LEAST TWICE PER YEAR. (SPRING/FALL)
- ENSURE WINDSHIELD WASHER AND, IF APPLICABLE, ALCOHOL BOTTLES ARE REPLENISHED.

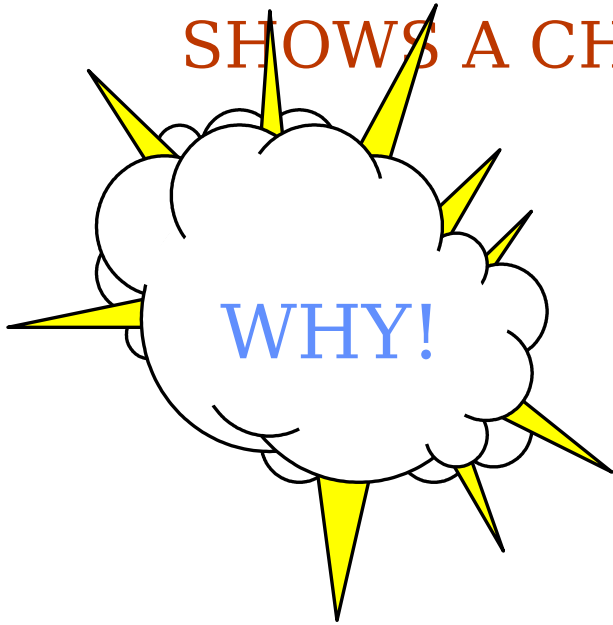
EVEN MORE MAINTENANCE POINTS

- KEEP ALL FUEL TANKS AS FULL AS POSSIBLE TO KEEP MOISTURE FROM CONDENSING INSIDE FUEL LINES AND TANKS. FILTER THE FUEL THROUGH A CHAMOIS TO REMOVE WATER.
- DRAIN THE AIR TANKS EACH TIME YOU STOP. THIS REDUCES THE CHANCE OF MOISTURE IN THE AIR TANKS AND LINES.



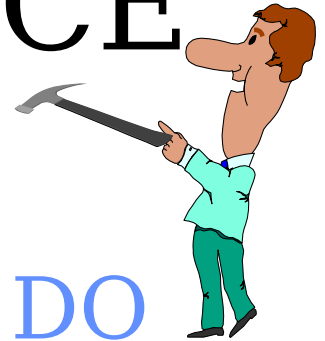
MORE MAINTENANCE CARE

- ON BRIEF HALTS DURING EXTREMELY COLD WEATHER, LET THE ENGINE RUN AT A FAST IDLE SO THAT THE AMMETER SHOWS A CHARGE.

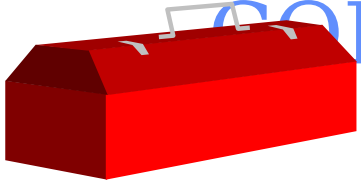


- * BURNS FUEL BETTER
- * MAINTAINS EVEN ENGINE TEMPERATURE

MORE MAINTENANCE POINTS



- WHEN PERFORMING PMCS, DO NOT TOUCH METAL WITH YOUR BARE HANDS.
- WHEN CLIMBING ON VEHICLES, USE EXTREME CAUTION. REMEMBER, THREE POINTS OF CONTACT.





WINTER

Cold Hard Facts

- *Adjust to Conditions*
- *Hills and Grades*
- *Following Distance*
- *Steering*
- *Skids*

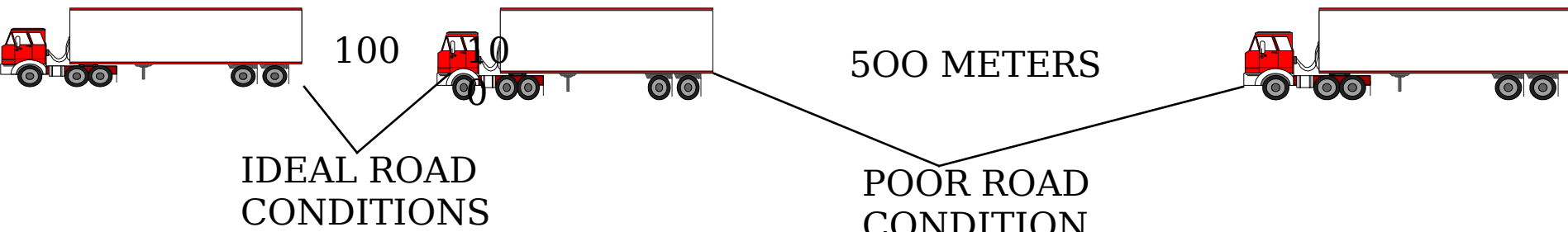


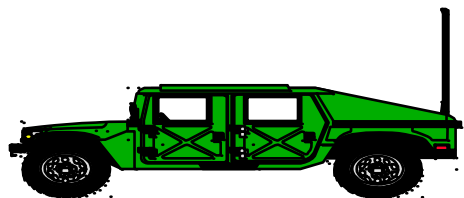
DEFENSIVE DRIVING TECHNIQUES

- DRIVE AT REDUCED SPEEDS SO YOU CAN STOP QUICKER
- GIVE TURN SIGNALS SOONER THEN USUAL. THIS GIVES OTHER DRIVERS MORE TIME TO REACT
- PUMP YOUR BRAKES TO WARN OF YOUR INTENTION TO STOP
- MAINTAIN AT LEAST TRIPLE THE NORMAL DISTANCE FROM THE VEHICLE AHEAD.

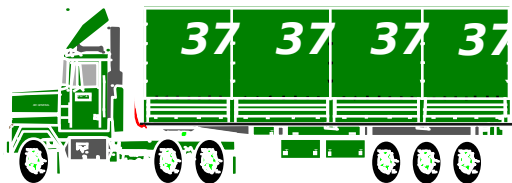
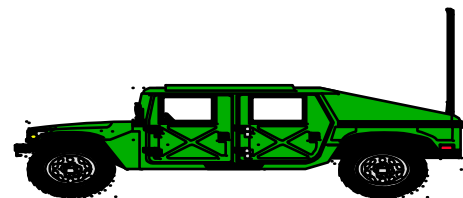
DISTANC E

THREE TO ELEVEN TIMES MORE
DISTANCE IS REQUIRED TO STOP
A VEHICLE ON PAVEMENT
COVERED WITH ICE OR SNOW.

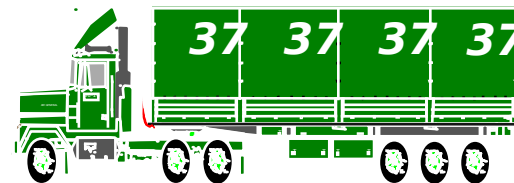




4 SECONDS



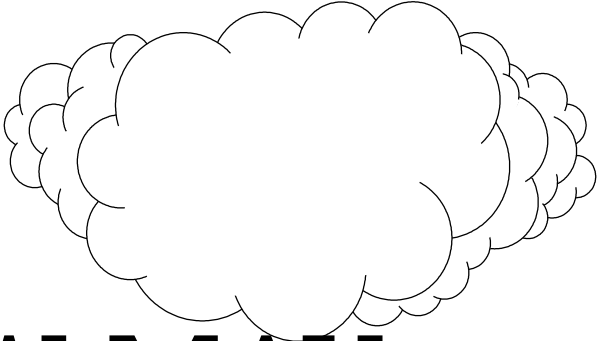
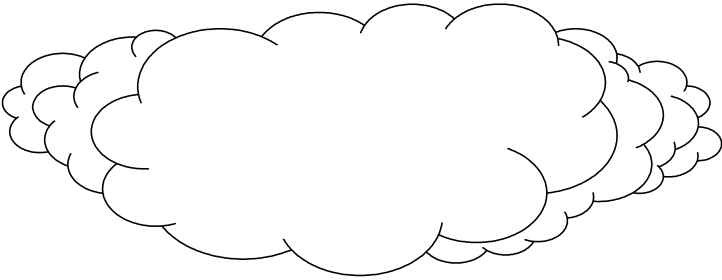
6 SECONDS



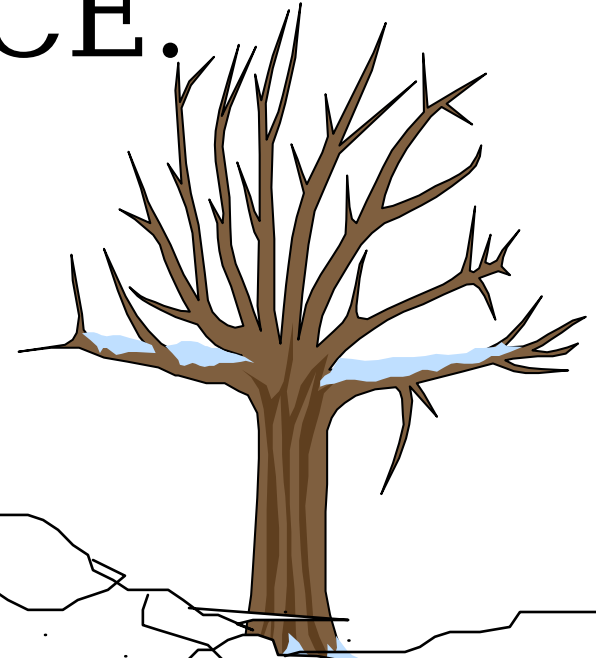
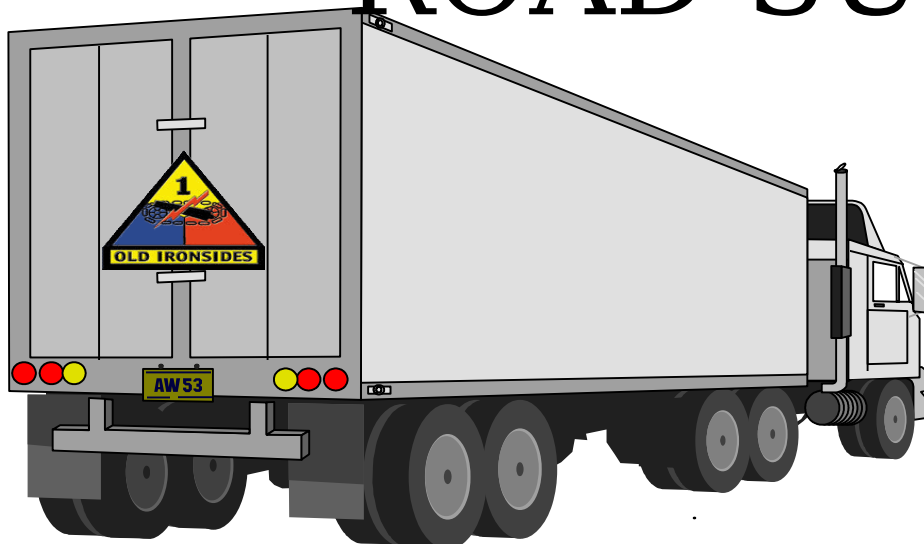
OPERATING ON SNOW AND ICE

- START DRIVING IN SECOND OR THIRD GEAR RATHER THAN FIRST OR LOW. ENGAGE THE CLUTCH GRADUALLY (or in D2, HIGH, WITH AUTOMATIC TRANSMISSION), AND ACCELERATE NO MORE THAN NECESSARY TO KEEP FROM STALLING.

* AVOID QUICK ACCELERATION ON SLICK ROADS.
IT WILL CAUSE YOU TO SKID.



FRESH SNOW MAY
CONCEAL AN ICY
ROAD SURFACE.

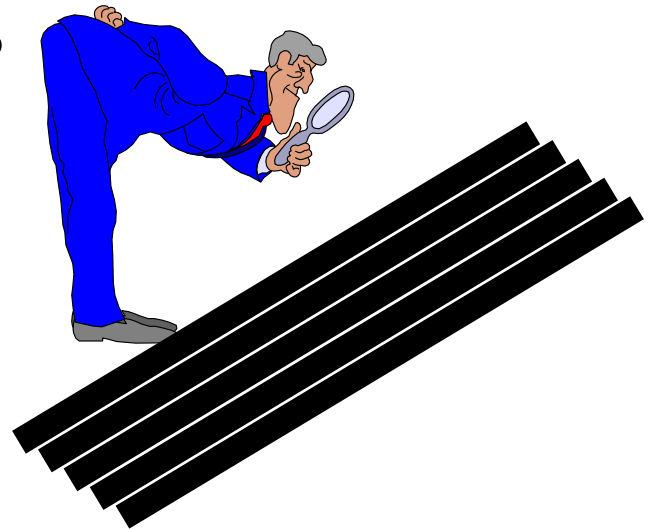


BLACK ICE

DANGEROUS BECAUSE YOU CAN'T
SEE IT!

COMMON AREAS YOU FIND IT

1. Bridges/Overpasses
2. Shaded areas



BLACK ICE REACTION

DO NOT PANIC!

MAKE NO SUDDEN CHANGES IN SPEED OR
DIRECTION!

EASE OFF ACCELERATOR!

STEER IN DIRECTION THAT THE REAR OF THE
VEHICLE IS SKIDDING!



WHEN DRIVING IN FOG, USE LOW-BEAM
HEADLIGHTS

STOP, OFF THE ROADWAY, AND
WAIT

HILLS AND GRADES

When approaching a hill or upgrade / downgrade remember to do the following:

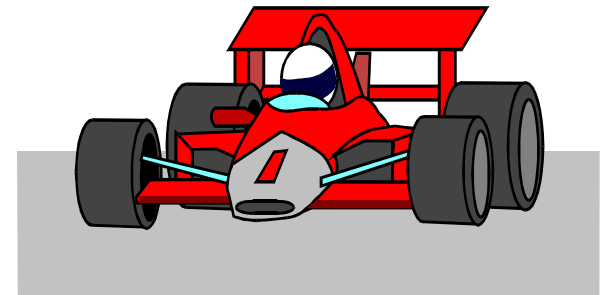
1. Select the proper gear before approaching, usually a lower gear.
2. Use the same gear going down that you used going up. This will allow the engine to act as a brake, so you will not have to use your brake excessively.

SKIDS

Result from unexpected forces:



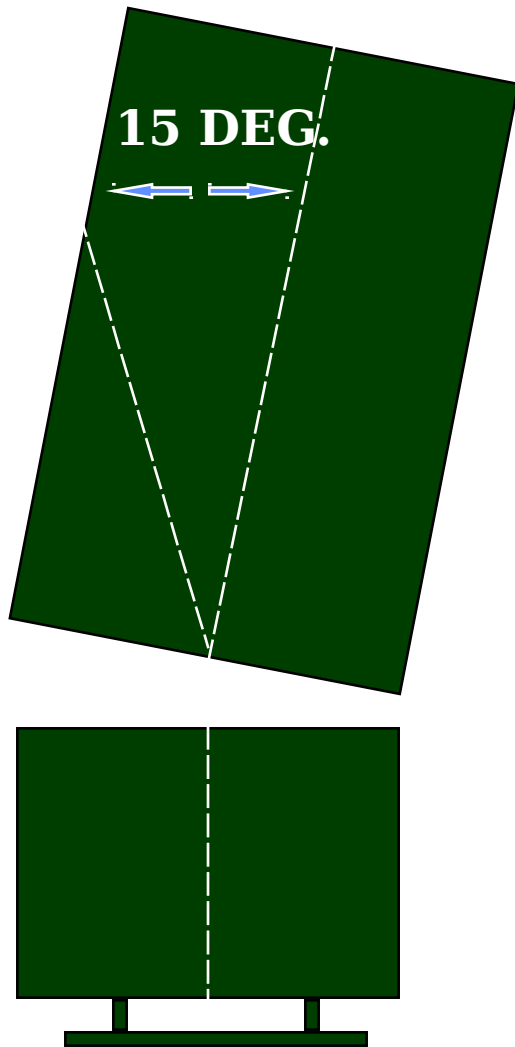
1. Black Ice
2. Driving too fast for conditions
3. Sudden steering



SKIDS CONTINUED

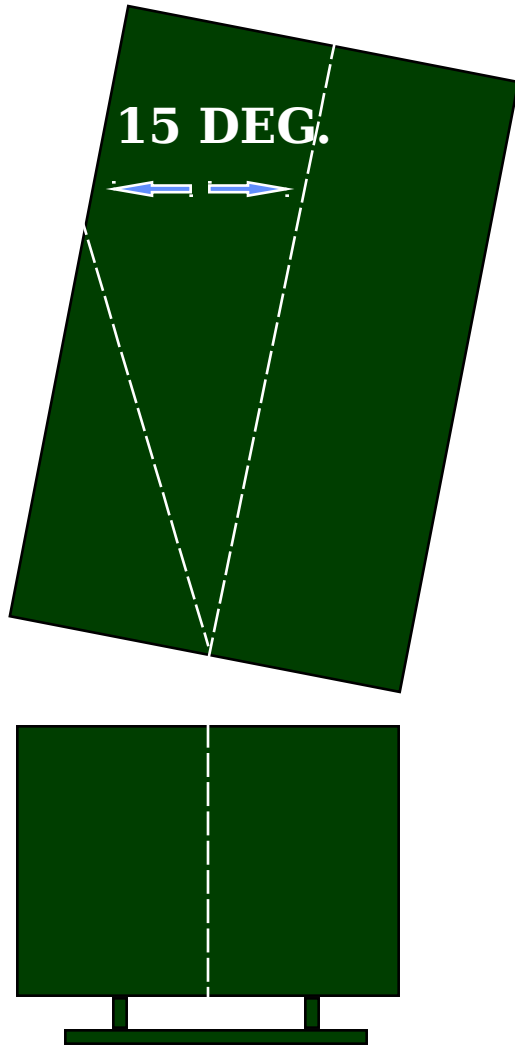
If your vehicle begins to skids, take the following actions:

1. Front end skids - Release the brake and let the front wheels roll freely to regain traction and steering control.
2. Rear end skids - Take foot off of accelerator and turn wheels in the direction that the rear of the vehicle is skidding, and pump



VEHICLE JACK-KNIFE PREVENTION

Brake before the turn, not in the turn accelerate smoothly and slowly. Decelerate slowly, and ease up on the brakes. Make smooth gear shifts and clutch engagements. Steer in the opposite direction the trailer is skidding, while pumping the brakes lightly.



VEHICLE JACK-KNIFE

A JACK-KNIFE OCCURS WHEN THE ANGLE BETWEEN THE TRACTOR AND TRAILER GETS TO A POINT WHERE IT CAN'T BE STRAIGHTENED OUT BY THE DRIVER.

RISK ASSESSMENT

- EXPERIENCE

- LIVING ENVIRONMENT
- YEARS AND MILES DRIVEN
- SITUATIONS

- ROAD CONDITIONS

- RED
- AMBER
- GREEN

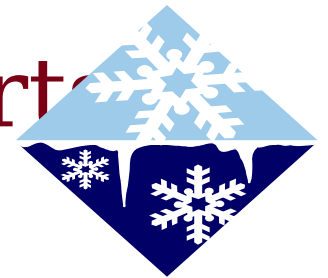


1ST ARMORED DIVISION WINTER BAG

Minimum Requirements



1. Arctic Sleeping Bag
2. Wet Weather Gear
3. Over Shoes
4. Blanket
5. Wet Weather Bag
6. Field/Gortex Jacket
7. Gloves with Inserts



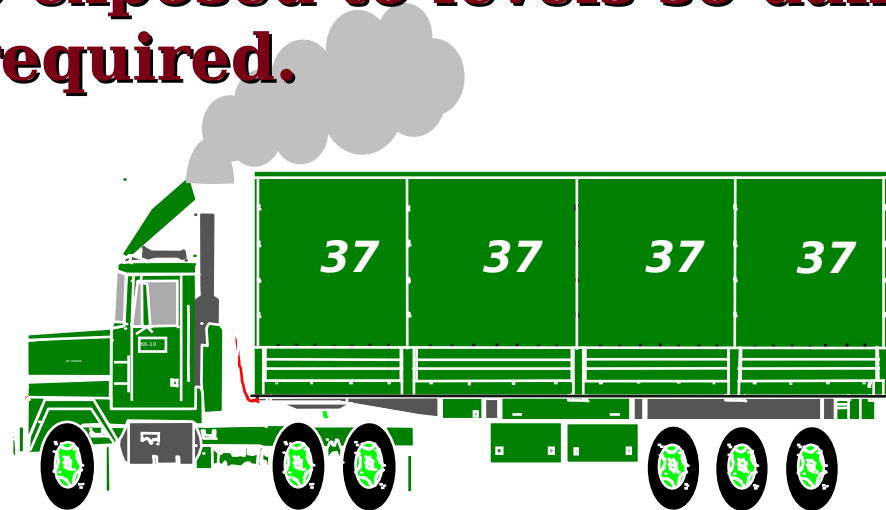
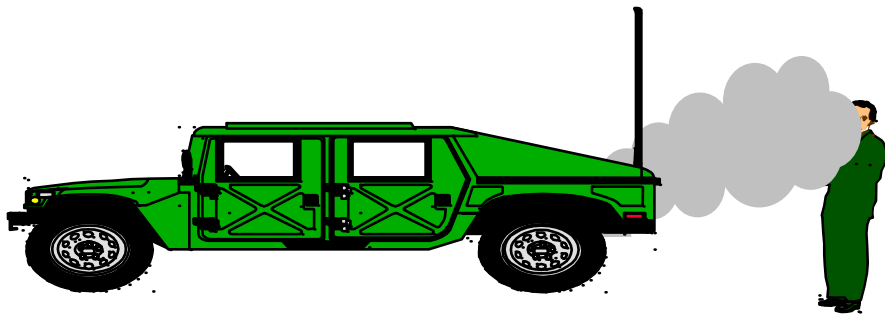
CARBON MONOXIDE

DANGER

CARBON MONOXIDE

POISONING

Each year 1,500 people are killed in the U.S. by monoxide, approximately 900 of whom die in the home. More than 10,000 are exposed to levels so dangerous that medical attention is required.



CARBON MONOXIDE

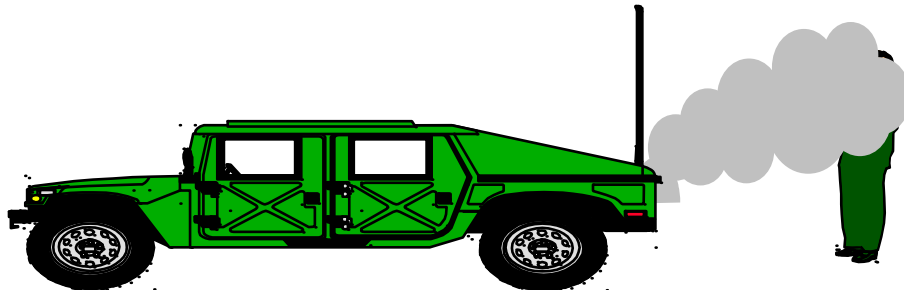
EFFECTS

1. Odorless & Colorless
2. Nausea & Dizziness
3. Causes soldiers to become sleepy
4. In extreme cases it can be fatal



CARBON MONOXIDE PREVENTION

1. Never run engine with windows up
2. Checks exhaust daily for leaks
3. Always leave at least one window cracked while driving

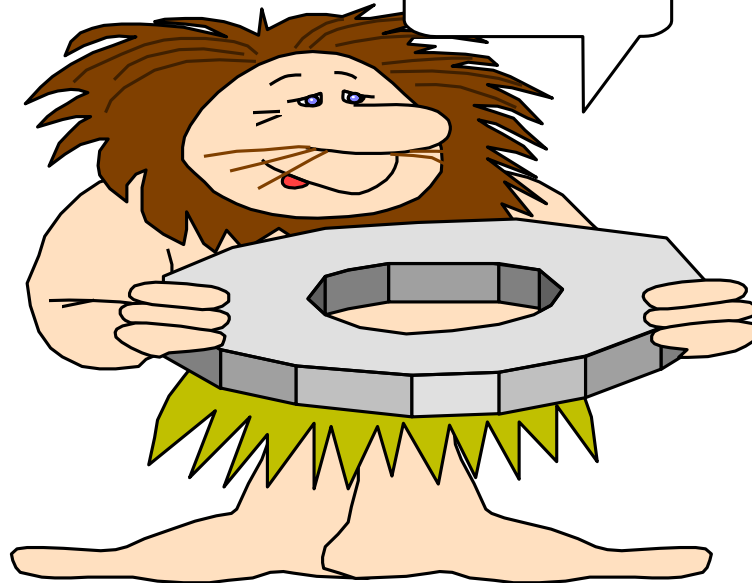


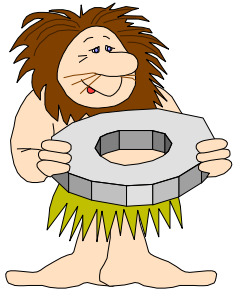
CHAIN

CHAINS GIVE A GOOD BITE IN
SNOW OR MUD BUT TEND TO
SLIDE AND SLIP ON ICE AND
PACKED SNOW.

oh no!

He should
have
gone to the
chain class!





CHAINS



Before execution of the mission the following checks should be made:

1. Ensure vehicle is equipped with snow chains.
2. Snow chains are serviceable, and in good condition.
3. Leadership will ensure the driver has a working knowledge of

SUMMARY

- Cold weather greatly affects the operating performance of your equipment.
- Winter weather presents unique hazards, i.e.. snow, slush, ice, black ice, etc...
- Drivers must continually train and gain experience for safe winter driving.
- SLOW DOWN!
- INCREASE INTERVALS!